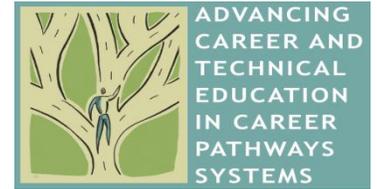
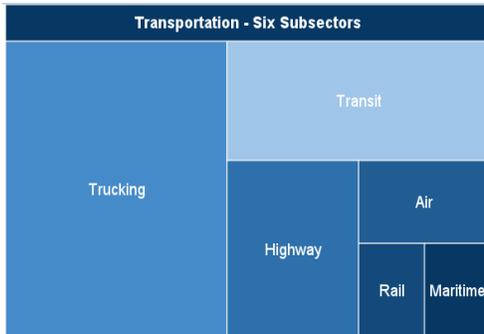


Strengthening Skills Training and Career Pathways across the Transportation Industry Fact Sheet



The U.S. Departments of Education, Transportation, and Labor have worked together and with industry stakeholders to project the employment and skill needs of the transportation industry over the next ten years.



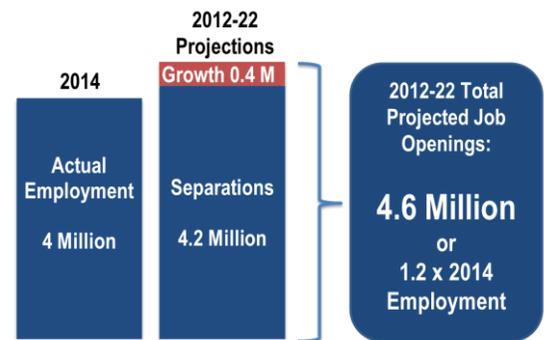
The **six transportation subsectors** examined are:

- Trucking Transportation
- Transit and Ground Passenger Transportation
- Air Transportation
- Highway Construction and Maintenance
- Rail Transportation
- Maritime Transportation

(The subsectors in the figure at left are shown proportionate to the number of 2012–2022 projected job openings in each.)

Data across the six modal subsectors reveal the following strong **workforce trends**:

- Across these six modal subsectors, the transportation industry faces major demographic challenges with job growth, retirement, and turnover.
- Combining growth and separations, transportation industry employers will need to hire approximately 4.6 million workers, an equivalent of 1.2 times the current transportation employment between 2012 and 2022 (right figure). Transit and ground passenger transportation have the highest percentage of total job openings at 133 percent. Developing a qualified and trained workforce will be a critical task.
- Preliminary analysis indicates that projected annual job openings are 68 percent larger than the number of students who are completing related educational programs annually across selected transportation occupational groups. This highlights a significant skills gap that must be addressed to meet expected industry demand.



2012-2022 Transportation Job Openings



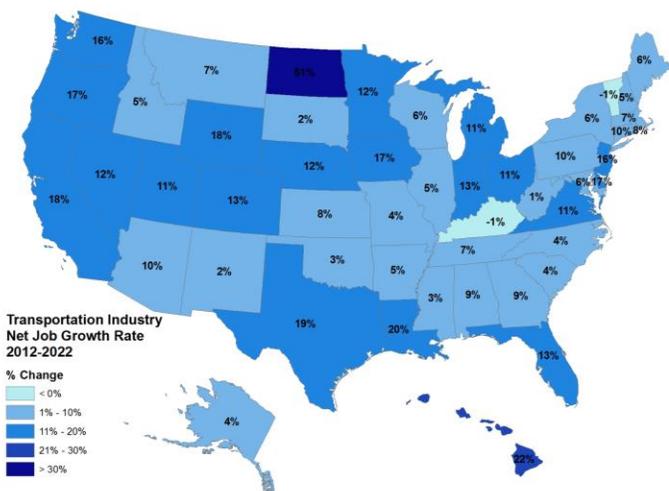
- The jobs in greatest demand are semi-skilled and skilled jobs in operations and maintenance. For every future job opening in central services or construction in the transportation industry, there will be an estimated two jobs in maintenance and 21 in operations (left figure).
- Transportation jobs pay relatively well. Thirteen out of the top 20 highest demand transportation jobs pay above the median wage, sometimes substantially. Because union density in most transportation subsectors is much higher than in the general economy, many of these jobs include strong benefits in addition to good wages.

- While a high school diploma and demonstration of math and language proficiency is sufficient to gain access to many entry-level jobs in transportation, training through some combination of career and technical education programs, apprenticeships, or On-the-Job Learning is required to attain mastery (e.g., advancing from being a bus maintenance apprentice to a journeyman technician). In some transportation crafts, there is a need to earn postsecondary certificates or other industry-recognized credentials prior to entering work. For instance, aircraft mechanics and service technicians are typically certified by the Federal Aviation Administration.

Growth

- Transportation is projected to add 417,000 net jobs from 2012 to 2022 due to industry growth.

- Between 2012 and 2022, the average employment growth rate of 11 percent across transportation subsectors is similar to that of the entire economy (10.8 percent) and of the infrastructure industry (11 percent) which includes transportation, logistics, water, energy, telecommunications, and public works.



- Net transportation job growth will occur in all but two states between 2012 and 2022. Kentucky and Vermont will experience a slight decline but only by 1 percent. The fastest growth will occur on the West Coast, the Gulf Coast, the upper Mid-Atlantic, several Mountain States, and the Midwest (left figure).

- Much of the regional transportation job growth is driven by growth in the large metropolitan areas within those regions. The highest number of job openings in transportation, including all six subsectors, will likely be generated in New York City, Dallas, Los Angeles, Houston, and Chicago between 2012 and 2022.

Retirement and Separations

- In 2014, approximately 53 percent of current transportation workers are 45 years or older, which creates significant workforce development challenges (right figure). Transit (35 percent) and railroad (29 percent) respectively have the highest percentage of workers over 55 years old.
- From 2012 to 2022, an additional 4.2 million transportation workers will need to be hired to fill vacancies created by separations (occupational transfers, retirement, and other exits).



Unique Scenarios

- In smaller sectors such as railroad and maritime, the effect of a large percentage of older workers retiring can be significant, even though the absolute number of job openings may not be large.
- Trucking has by far the largest number of projected 2012-2022 job openings. Combining growth and separations, over 2 million jobs will need to be filled.

Career Pathway Models

- Career and Technical Education programs of study, beginning in high school and continuing into postsecondary education or apprenticeship can provide the foundational and early occupational skills training needed in skilled occupations.
- Pre-apprenticeship programs for disadvantaged youth and adults can prepare low-skilled and underrepresented populations for entry into these skilled positions.
- Career Pathways systems that are aligned with Registered Apprenticeship programs can expand the number of people who can access these high-demand jobs.
- Significant training at the workplace helps people move from novice to skilled practitioner in their craft.



For more information on the data report, go to: <http://cte.ed.gov/initiatives/advancing-cte-in-state-and-local-career-pathways-system>

This fact sheet was produced under U.S. Department of Education Contract No. ED-VAE-12-C-0068 with Jobs for the Future, with funding from the U.S. Department of Transportation. The views expressed herein do not necessarily represent the positions or policies of the Departments of Education or Transportation. No official endorsement by the Departments of any product, commodity, service, or enterprise mentioned in this publication is intended or should be inferred. For the reader's convenience, this publication contains information about and from outside organizations, including hyperlinks and URLs. Inclusion of such information does not constitute the Departments' endorsement.